

REMARKS

I. Status of the Application

Applicants note that any amendments of claims are made without acquiescing to any of the Examiner's arguments or rejections, and solely for the purpose of expediting the patent application process in a manner consistent with the PTO's Patent Business Goals (PBG),¹ and without waiving the right to prosecute the amended claims (or similar claims) in the future.

Applicants herein amend Claims 1 and 20. Support for these amendments can be found throughout the application, for example, at pages 52-53, lines 25-31 and 1-6, respectively.

As such, Claims 1, 5-6, 20, 22, and 24 are pending in the application.

II. Claim 1 is Not Anticipated by Levin *et al.*

The Examiner rejected Claim 1 under 35 U.S.C. §102(e) in the Office Action mailed July 14, 2004, as allegedly being anticipated by Levin *et al.* (U.S. Pat. No. 6,432,365) and has maintained this rejection in the current Office Action. Applicants respectfully disagree.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference."² The cited reference does not teach nor possess all of the elements of the claimed invention.

Levin *et al.* does not teach nor disclose a synthesizer comprising a reaction chamber and a lid enclosure, wherein the lid enclosure contains a ventilation system that provides a substantially ventilated workspace via the ventilation system in the lid enclosure.

Instead, Levin *et al.* teaches a system for dispensing solutions to a multiwell plate for compound synthesis inside a centrifuge chamber. Specifically, the

"Centrifuge chamber 112 must be sufficiently sealed so that it is capable of maintaining a vacuum and resistant to the harsh chemicals used during processing of the samples. Chamber lid 116 provides access to the interior of chamber 112 for loading and unloading of the sample and collection containers."³

The chamber lid (also referred to as the "software controlled access door," 116) of Levin *et al.* does not in any way contain a ventilation system (See, e.g., Figures 2, 4 and 5 of Levin *et*

¹ 65 Fed. Reg. 54603 (Sept., 8, 2000).

² *Verdegaal Bros. v Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987).

³ See U.S. Pat. No. 6,432,365, column 8, lines 24-29.

al.). Instead, because the centrifuge chamber of Levin *et al.* "must be sufficiently sealed so that it is capable of maintaining a vacuum" the chamber lid and ventilation system of Levin *et al.* are distinct and separate elements of the Levin *et al.* system. Thus, Levin *et al.* does not provide an oligonucleotide synthesizer comprising a reaction chamber and a lid enclosure wherein the lid enclosure contains a ventilation system, wherein in an open position, the lid enclosure provides a substantially ventilated workspace via the ventilation system in the lid enclosure.

Accordingly, Levin *et al.* does not teach or disclose all elements of Claim 1. Applicants respectfully request that this rejection be withdrawn.

III. The Claims Are Not Obvious

A *prima facie* case of obviousness requires the Examiner to provide a reference(s) which (a) discloses all of the elements of the claimed invention, (b) suggests or motivates one skilled in the art to combine the claimed elements to produce the claimed combination, and (c) provides a reasonable expectation of success should the claimed combination be carried out. Failure to establish any one of these three requirements precludes a finding of a *prima facie* case of obviousness and without more entitles Applicants to allowance of the claims in issue.⁴

A. Claims 5 and 6 Are Non-Obvious

The Examiner rejected Claims 5 and 6 under 35 U.S.C. §103 (a) in the Office Action mailed September 27, 2005, as allegedly being unpatentable over Levin *et al.* (U.S. Pat. No. 6,432,365) and has maintained this rejection in the current Office Action. Applicants respectfully disagree.

Claim 5 and 6 depend from Claim 1. As described in detail above, Claim 1 is not anticipated by Levin *et al.* Thus, Levin *et al.* does not teach or suggest all elements of Claim 5 or Claim 6. Because Levin *et al.* does not teach or disclose all elements of Claim 5 or Claim 6, a *prima facie* case of obviousness can not be established.⁵

Applicants respectfully request that this rejection be withdrawn.

⁴ See, e.g., *Northern Telecom Inc. v. Datapoint Corp.*, 15 USPQ2d 1321, 1323 (Fed. Cir. 1990).

⁵ See MPEP § 2143.01.

B. Claims 20, 22 and 24 Are Non-Obvious

The Examiner rejected Claims 20, 22 and 24 under 35 U.S.C. § 103(a) in the Office Action mailed September 27, 2005, as allegedly being unpatentable over McGowan et al. (6,328,627) in view of Heyneker et al. (6,264,981) and has maintained this rejection in the current Office Action. Applicants respectfully disagree. Specifically, Applicants assert that there is no basis or motivation for combining the cited references.

The Examiner has provided no basis for combining the McGowan *et al.* and Heyneker *et al.* references.

A recent Federal Circuit case explicitly discusses the standards for establishing motivation to combine. (*See, In re Lee*, 277 F.3d 1338 (Fed. Cir. 2002)). Specifically, the Federal Circuit held that:

The factual inquiry whether to combine references must be thorough and searching. It must be based on **objective evidence** of record. This precedent has been reinforced in myriad decisions, and cannot be dispensed with.⁶

Furthermore, an Examiner may not simply rely on conclusory statements even for what they think might be common sense or well known in the art:

The 'common knowledge and common sense' on which the Board relied in rejecting Lee's application are not the specialized knowledge and expertise contemplated by the Administrative Procedure Act. Conclusory statements such as those here provided do not fulfill the agency's obligation. This court explained in *Zurko*, 258 F.3d at 1385, 59 USPQ2d at 1697 that 'deficiencies of the cited references cannot be remedied by the Board's general conclusions about what is 'basic knowledge' or 'common sense.' The Board's findings must extend to all material facts and must be documented on record, lest the 'haze of so-called expertise' acquire insulation from accountability. 'Common knowledge and common sense,' even if assumed to derive from the agency's expertise, do not substitute for authority when the law requires authority.'⁷

However, instead of providing an objective teaching or suggestion to combine the references, the Examiner has opined:

"It would have been obvious to one of ordinary skill in the art to combine the vacuum system of Heyneker et al. with the block of McGowan. One would add the vacuum system of Heyneker in order to use a vacuum to remove fluids from the system."⁸;

The Examiner has reiterated this opinion in subsequent Actions.⁹

⁶*See, In re Lee*, 277 F.3d 1338, 1344 (Fed. Cir. 2002); internal citations omitted; emphasis added.

⁷*Id.* at 1344-1345.

⁸ Office Action mailed October 27, 2003, ¶ 11 (page 6, lines 8-11).

Applicants assert that each of the Examiner's statements referred to above is an example of conclusory reasoning, based only on hindsight reconstruction of the claimed invention. This is precisely the type of rejection that the Federal Circuit has forbidden (e.g., See in *In re Lee*, supra). The Examiner has provided no "objective evidence of record" as required by the Federal Circuit. This is not surprising, since McGowan and Heyneker are directed to different technologies, and neither reference, alone or combined, teaches or suggests each element of the claimed invention.

Furthermore, Applicants respectfully assert that the Examiner is not able to cite to specific, objective factual findings because if an attempt were made to present such objective evidence, it would be clear that McGowen would not benefit from being modified by the teachings of Heyneker. Specifically, attempting to add a vacuum system taught by Heyneker to the reaction block of McGowen would render the McGowen reaction block incapable of performing its intended function.

In particular, the McGowen reaction block "for enabling reflux condensation of the mixtures"¹⁰ functions when

"Vapors released during reaction of the reagent solution rise to the upper end of vials 12, are cooled by the circulating gas in internal volume 28 and condensed on the inner sidewalls of the vials. The condensate then flows back to the lower end of vials 12 due to gravity. Thus, reaction block 10 enables a reflux condensation to occur during reaction of the reagent solution."

If one attempted to apply the vacuum system of Heyneker in order to use the vacuum to remove fluids from the reaction block system of McGowen, vapors released during reaction of the reagent solution and involved in reflux condensation reactions would be removed by the vacuum, thereby inhibiting the performance of the reflux condensation reactions that would otherwise occur in the reaction block.

Thus, in effect, there exists no reason why one of skill in the art would attempt to modify the reaction block of McGowen with the vacuum of Heyneker. In fact, attempting to do so would render the McGowen reaction block unsatisfactory for its intended purpose.

⁹ See, e.g., Office Action mailed July 14, 2004, ¶ 8 (pages 5 and 6, lines 18-22 and 1-2, respectively); Office Action mailed March 10, 2005, ¶ 10 (page 6, lines 6-8 and 12-14); and Office Action mailed September 29, 2005, ¶ 9 (page 6, lines 3-5).

¹⁰ See, e.g., U.S. Pat. No. 6,238,627, Abstract.

Thus, because modifying the reaction block of McGowen with the vacuum of Heynecker would render the reaction block so modified unsatisfactory for reflux condensation reactions, there can exist no suggestion or motivation to make the proposed modification.¹¹


Applicants have specifically pointed out 1) the Examiner's inability to cite to objective evidence containing a suggestion or motivation to combine these references; and 2) that the McGowen reaction block modified by the vacuum system of Heynecker would be rendered unsatisfactory for its intended purpose.

Thus, Applicants submit that the Examiner has failed to meet the requirements for establishing a *prima facie* case of obviousness and respectfully request this rejection be withdrawn.

CONCLUSION

For the reasons set forth above, it is respectfully submitted that Applicants have addressed all grounds for rejection and respectfully request that Applicants' claims be passed to allowance. Should the Examiner have any questions, or if a telephone conference would aid in the prosecution of the present application, Applicant encourages the Examiner to call the undersigned collect at 608-218-6900.

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David A. Casimir
Registration No. 42,395

MEDLEN & CARROLL, LLP
101 Howard Street, Suite 350
San Francisco, California 94105
(608) 218-6900

¹¹ See *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984).